



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0689; Project Identifier AD-2020-01589-R]

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters. This proposed AD was prompted by a cracked main rotor stationary swashplate assembly (swashplate assembly). This proposed AD would require visually inspecting the swashplate assembly at specified intervals and depending on the results, removing the swashplate assembly from service. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact your local Sikorsky Field Representative or Sikorsky's Service Engineering Group at Sikorsky Aircraft

Corporation, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-946-4337 (1-800-Winged-S); email wcs_cust_service_eng.gr-sik@lmco.com. Operators may also log on to the Sikorsky 360 website at <https://www.sikorsky360.com>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0689; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Jared Hyman, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone 781-238-7799; email: Jared.M.Hyman@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0689; Project Identifier AD-2020-01589-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Jared Hyman, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone 781-238-7799; email: Jared.M.Hyman@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA was notified of an in-service crack in a swashplate assembly inner ring. The crack, discovered during a routine inspection, extended between the uniball bore and near the right-hand trunnion to servo attach bolt hole. This condition, if not detected and corrected, could result in fretting wear on the shoulder that supports the clamp-up of the uniball outer race, failure of the swashplate assembly, and subsequent loss of control of the helicopter.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Sikorsky Aircraft Corporation Alert Service Bulletin ASB 92-62-009, Basic Issue, dated February 6, 2019 (ASB). The ASB specifies a one-time visual inspection of the swashplate assembly to determine if there are any cracks. If cracks are found, the ASB specifies replacing the swashplate assembly. If there is any other damage

such as nicks, dents, or scratches, the ASB specifies providing that damage information to Sikorsky. The ASB also specifies returning the swashplate assembly, uniball bearing, trunnions, and all attachment hardware to Sikorsky for investigation if cracks are found. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Proposed AD Requirements in this NPRM

This proposed AD would require, within 50 hours time-in-service (TIS), and thereafter at intervals not to exceed 50 hours TIS, visually inspecting the upper and lower surfaces of the swashplate assembly for a crack, nick, dent, and scratch. If there is a crack, nick, dent, or scratch that exceeds allowable limits, this proposed AD would require removing the swashplate assembly from service before further flight.

Differences Between this Proposed AD and the Service Information

The ASB specifies a one-time visual inspection of the swashplate assembly; this proposed AD would require repetitive visual inspections of the swashplate assembly to determine if any crack, nick, dent, or scratch develops over time. This proposed AD would not require returning parts to or contacting Sikorsky, while the ASB specifies performing those actions.

Costs of Compliance

The FAA estimates that this AD would affect 89 helicopters of U.S. Registry and that operators may incur the following costs in order to comply with this proposed AD. Labor costs are estimated at \$85 per work-hour.

Visually inspecting a swashplate assembly would take about 0.5 work-hour, for an estimated cost of \$43 per helicopter and \$3,827 for the U.S. fleet, per inspection cycle.

Replacing the swashplate assembly, if required, would take about 16 work-hours and parts would cost about \$389,720, for an estimated cost of \$391,080 per helicopter.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Sikorsky Aircraft Corporation: Docket No. FAA-2021-0689; Project Identifier AD-2020-01589-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Sikorsky Aircraft Corporation Model S-92A helicopters, certificated in any category, with a main rotor stationary swashplate assembly (swashplate assembly) part number (P/N) 92104-15011-042 or P/N 92104-15011-043 that has accumulated 1,600 or more total hours time-in-service, installed.

(d) Subject

Joint Aircraft System Component (JASC) Code/Air Transport Association (ATA) of America Code 6230, Main Rotor Mast/Swashplate.

(e) Unsafe Condition

This AD was prompted by the discovery of a crack on the swashplate assembly inner ring. This condition, if not detected and corrected, could result in fretting wear on the shoulder that supports the clamp-up of the uniball outer race, failure of the swashplate assembly, and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 50 hours time-in-service (TIS) after the effective date of this AD, and thereafter at intervals not to exceed 50 hours TIS, visually inspect the swashplate assembly for a crack, nick, dent, and scratch, by following the Accomplishment Instructions, Section 3, paragraph B. (except paragraphs B.(2)(a) through (c)) of Sikorsky Aircraft Corporation Alert Service Bulletin ASB 92-62-009, Basic Issue, dated February 6, 2019.

(2) If there is a crack, nick, dent, or scratch that exceeds the allowable limits, before further flight, remove the swashplate assembly from service.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Boston ACO, Compliance & Airworthiness Division, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in Related Information.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Jared Hyman, Aerospace Engineer, Boston ACO Branch, Compliance & Airworthiness Division, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone 781-238-7799; email: Jared.M.Hyman@faa.gov.

(2) For service information identified in this AD, contact your local Sikorsky Field Representative or Sikorsky's Service Engineering Group at Sikorsky Aircraft Corporation, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-946-4337 (1-800-Winged-S); email wcs_cust_service_eng.gr-sik@lmco.com. Operators may also log on to the Sikorsky 360 website at <https://www.sikorsky360.com>. You may view this referenced service information at the FAA, FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Issued on August 16, 2021.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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